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ABSTRACT

Two experiments examined nonverbal behavior patterns and relational communication perceptions associated with communication reticence. In the first experiment, pairs of friends and pairs of strangers engaged in nine-minute discussions. Subjects were rated by their interaction partners and by trained observers. Results showed that as their level of communication reticence increased, they nodded less, showed less facial pleasantness and animation, displayed anxiety and tension, leaned away more and communicated greater disinterest. Strangers rated their relational messages as showing less intimacy and similarity, more detachment, more submissiveness, less receptivity and more emotional negativity. They also rated reticents consistently lower on credibility. Friends gave mixed but frequently more positive ratings to more reticent individuals. In the second experiment, 55 subjects interacted with male or female confederate interviewers who alternately asked innocuous or highly personal questions. The same patterns of nonverbal behavior emerged as in the first study, with increases in stress (due to privacy-invading questioning) eliciting more pronounced responses. Results are discussed in terms of the cross-situational consistency of reticence syndromes in eliciting dysfunctional communication patterns. (Author)

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Patterns of Nonverbal Behavior and Perceived Relational Messages Associated with Communication Reticence

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ABSTRACT

Two experiments examined nonverbal behavior patterns and relational communication perceptions associated with communication reticence. In the first experiment, pairs of friends (N=90) and pairs of strangers (N=90) engaged in 9-minute discussions. Subjects were rated by their interaction partners and by trained observers. Results showed that as their level of communication reticence increased, they nodded less, showed less facial pleasantness and animation, displayed anxiety and tension, leaned away more and communicated greater disinterest. Strangers rated their relational messages as showing less intimacy and similarity, more detachment, more submissiveness, less receptivity and more emotional negativity. They also rated reticents consistently lower on credibility. Friends gave mixed but frequently more positive ratings to more reticent individuals. In the second experiment, 55 subjects interacted with a male or female confederate interviewer who alternately asked innocuous or highly personal questions. The same patterns of nonverbal behavior emerged as in Study One, with increases in stress (due to privacy-invading questioning) eliciting more pronounced responses. Results are discussed in terms of the cross-situational consistency of reticence syndromes in eliciting dysfunctional communication patterns.

Patterns of Nonverbal Behavior and Perceived Relational Messages Associated with Communication Reticence

Research over the last two decades has brought considerable advances in our understanding of communicative dysfunction. Along with it has come a proliferation of labels to refer to anxious, inept, avoided or devalued communication attempts. Notwithstanding the differences in conceptualizations and etiologies among the various syndromes, for purposes of identifying behavioral manifestations and social consequences, they can be subsumed under the more global construct of communication reticence (Burgoon & Hale, 1983a).

The accumulated research evidence indicates that communication reticence has a pervasive impact on the individual experiencing it, affecting everything from instructional preferences (Burgoon, 1976a; Kelly, Phillips & McKinney, 1982; McCroskey, 1975; McCroskey & Andersen, 1976) and academic achievement (McCroskey & Andersen, 1976; McCroskey & Daly, 1976) to verbal encoding patterns (Burgoon & Hale, 1983b; Powers, 1977), occupational choice (Daly & McCroskey, 1975) and possibly even dating patterns (McCroskey & Sheahan, 1978; Parks, Dindia, Adams, Berlin & Larson, 1980; Prisbell, 1982). However, many aspects of the actual communication behavior of reticents have not yet been investigated, especially the reticent's performance in the kinds of interpersonal encounters that form the mainstream of one's communication life.

In particular, we know little about the nonverbal behaviors of those with a communication reticence predisposition, other than what has been revealed through self-reports (cf. McCroskey, 1976), and we know even less about the relational consequences of those behaviors. Equally important,

while the assumption has been made that the reticence syndrome is debilitating, that assumption has not been exhaustively tested; knowledge of how others receive and interpret the reticent's actual interpersonal communication behavior is limited. The two studies to be reported here add to our knowledge base by examining the nonverbal repertoire associated with reticence and the relational message connotations engendered by the reticent's communication style.[1]

These studies also permit further exploration of the issue of cross-situational consistency of the reticence predisposition. Most proponents of the various syndromes have cast them toward the trait end of a state-trait continuum. For example, McCroskey, Daly, Richmond and Cox (1975) define communication apprehension as "a broad based personality-type characteristic..." (pp. 51-52), and Burgoon (1976c) defines unwillingness to communicate as a predisposition that "represents a chronic tendency to avoid and/or devalue oral communication" (p.60). However, most syndromes as conceptualized do not fit a straight trait interpretation, which implies behavioral invariance. Instead, Parks (1980) has noted, they align with Argyle and Little's (1972) "trait dispositional" perspective, which allows for some situational variability in an otherwise relatively stable pattern of response. Recent research by Burgoon and Hale (1983a) and Kelly, Phillips and McKinney (1982) supports such an approach in showing that communication context, mode of communication, communication history and personality all affect the degree of response of the reticent individual.

Even so, recent publications have challenged the validity of the various reticence constructs on their failure to show cross-situational

applicability. Hewes and Haight (1980) found only weak correlations between a measure of verbal reticence and six communication behaviors selected as good representatives of a tendency to withdraw from or avoid communication. (However, the behaviors themselves also showed weak intercorrelations.) Beatty, Behnke and McCallum (1978) and Beatty and Behnke (1980) found the Personal Report of Communication Apprehension (PRCA) to be sensitive to situational mediators (rather than maintaining constancy), and Porter (1981) criticized it as being applicable only to public settings and not to interpersonal contexts. Parks (1980) went so far as to conclude that "at present no evidence suggests that any of the measures of communication apprehension and its conceptual relatives are cross-situationally consistent" (p. 232). He based his conclusion on finding two distinct classes of situations to which communication apprehensives responded differentially and finding a correlation between apprehension and self-reported behavior for only one of the classes.

A closer scrutiny of Parks' (1980) study, however, offers a different explanation of his results. He described the two classes of situations identified through factor analysis as those involving familiar others and those involving strangers. However, the items comprising the first class of situations were exclusively nonthreatening. They included simple, everyday activities with which everyone has experience and which are unlikely to engender negative reactions in others. Examples: asking for the time, asking for a floor in an elevator, and thanking a relative for a gift. The second class, by contrast, more often involved interaction with unfamiliar others, a more difficult task, and the potential for negative reactions, such as interviewing for a job, leading a church service and

terminating an intimate relationship. It is therefore not surprising that apprehension showed no relationship with the first class of situations, which have no inherent anxiety-producing characteristics, but did correlate with those that could intuitively be expected to evoke apprehension in some of the people some of the time. To expect reticence predispositions to predict all facets of human behavior seems unreasonable; what is reasonable to expect is that individuals with a reticence predisposition show a relatively consistent pattern of response in those kinds of circumstances for which the syndrome is theoretically salient.

In essence, what Parks' (1980) investigation does is provide a partial delineation of the kinds of situations that do qualify as salient. His findings buttress what other researchers (e.g., Burgoon, 1976c; Parks, 1979; Phillips & Metzger, 1973; Porter, 1981; Richmond, 1978; Sorensen & McCroskey, 1977) have claimed and verified, namely that reticents are least apprehensive and withdrawn in nonevaluative, nonperformance, informal, interpersonal and familiar contexts. Hewes and Haight's (1980) negligible correlations between some communication behaviors and a measure of predisposition toward verbal behavior might also be explained by those specific behaviors fitting in the class of nonstressful or nonsalient circumstances; other behaviors in their study did show expected, if weak, reticence effects.

The question that remains unanswered is whether a consistent reticence communication pattern exists that merely differs in degree of response across contexts or whether responses differ in kind according to the situation. It is our belief that the pattern of response to threatening or nonrewarding situations is essentially the same, but that there is tremendous

variation in what circumstances elicit a sense of threat or nonreward for an individual. Put another way, all people are likely to experience anxiety or opt for avoidance in certain kinds of situations and, at those times, to display the typical reticence pattern. However, people differ in how frequently and broadly they generalize this pattern of response to different communication contexts. A reticent communicator may be seen as inclined to react anxiously or in a restrained fashion to a wider range of situations than a less reticent individual.

If this interpretation is valid, then cross-situational consistency is less problematic, for it means that the primary difference across situations is one of magnitude rather than complexion of response. The argument can be made that a certain threshold must be reached before one exhibits a discernible reticence pattern and that different situations entail different threshold levels. The predictive task then becomes one of identifying circumstances that have a high probability of evoking a reticence response pattern. The current experiments permitted us to begin that task by looking at four different communication conditions that varied in their potential for discomfort, stress and evaluation to see if each would elicit essentially the same behavioral profile.

Propositions

That relational communication is a ubiquitous and central element of interpersonal interchanges is well recognized. What is not so well recognized is how relational partners communicate their definitions of the relationship and of themselves within the relationship to their partners. While people certainly may verbalize on occasion about their relationship, more often relational messages take an implicit (Mehrabian, 1981), or nonverbal, form. For example, frequent eye gaze toward a conversational

partner may express liking, attentiveness, a relinquishing of relational control, or a desire for feedback, among other things, all of which constitute relational statements. The focus of these investigations was on such nonverbal behaviors that might have relational meaning and on the broader relational connotations produced by a reticent's verbal and nonverbal communication style.[2]

In an analysis of the primary message themes of relational communication, Burgoon and Hale (1981) identified as many as twelve distinct dimensions or continua along which relational messages can be exchanged. For measurement purposes, these can be combined into four orthogonal composites that provide a convenient framework for analyzing the possible nonverbal behaviors and relational meanings associated with communication reticence.

Emotional arousal/composure. This cluster contains themes related to emotional states, anxiety, composure and receptivity to stimulation from another. The content largely revolves around the concept of arousal, which has been defined as "a composite of the organism's mental alertness and physical activity levels" (Mehrabian, 1981, p.6). Changes in activation level may carry with them changes in affective states, ranging from positive to negative. For example, one may display excitement and joy (pleasurable emotional states) or tension, hostility and discomfort (unpleasant emotional states).

In the case of communication reticents, two somewhat contrasting patterns of arousal may occur simultaneously. On the one hand, reticents are described as anxious, uncomfortable, easily annoyed, restless,

changeable, impatient, frustrated and easily influenced by emotions (e.g., Friemuth, 1976; McCroskey, 1970; McCroskey, Daly, Richmond & Cox, 1975; McCroskey, Daly, Richmond & Falcione, 1977; McCroskey, Daly & Sorensen, 1976; Porter, Freimuth & Kibler, 1974). Research specifically on their communication behavior also shows they tremble more, are more tense in group discussions and are perceived as less composed (Behnke, Beatty & Kitchens, 1978; Burgoon & Burgoon, 1974; Fenton & Hopf, 1976; Jensen & Andersen, 1979; McCroskey, Daly & Sorensen, 1976; McCroskey & Richmond, 1976; Morganstern & Wheeless, 1980; Phillips, 1968; Porter, 1982; Quiggins, 1972; Wissmiller & Merker, 1976)..

On the other hand, reticents are also described as stiff, inhibited, restrained, reserved, inexpressive, unparticipative and quiet; an impressive amount of research corroborates this characterization (Burgoon, 1976a, 1976c; Fenton & Hopf, 1976; Hamilton, 1972; Knutson & Lashbrook, 1976; McCroskey, 1976, 1978; McCroskey, Daly & Sorensen, 1976; McCroskey & Leppard, 1975; McCroskey & Sheahan, 1976; McKinney, 1982; Rosenfeld & Plax, 1976; Sorensen & McCroskey, 1977; Weiner, 1973; Wells, 1970).

It is clear from the literature that two seemingly incompatible arousal patterns coexist within reticents. They at the same time manifest anxiety and tension while projecting a depressed, rigid and undemonstrative communication style. This combined pattern of behavior can be framed as a proposition:

> P1: During interaction, communication reticents exhibit more negative forms of arousal and fewer positive forms of arousal than nonreticents.

Operationally, this proposed pattern should be evidenced through nonverbal anxiety and adaptor behaviors, which include fidgeting, body blocking,

rigid posture, self-touching, uncoordinated and random limb movements, vocal nonfluencies, vocal tension and rapid or slowed speech (Burgoon & Aho, 1982; Clevenger, 1959; Ekman & Friesen, 1972; Mehrabian, 1981; Mulac & Sherman, 1974), as well as through reduced expressiveness, including the use of fewer illustrator gestures, less facial animation (a "deadpan" expression), less general trunk and limb movement, shorter speaking turns, monotone voice and the like (Burgoon & Aho, 1982; Mulac & Sherman, 1974). In general, negative forms of arousal should take the form not only of unpleasant affective states for the communicator (such as discomfort) but also ones with negative connotations for a receiver (such as a lack of poise).

Dominance-submission. This cluster of control-centered messages includes themes related to dominance, assertiveness, persuasiveness, ingratiation and their opposites. Literature addressing this issue for reticents is unequivocal. Conceptually, unwilling and apprehensive communicators are described as more compliant, conforming, obedient, submissive and unaggressive (Burgoon, 1976c; McCroskey, Daly & Sorensen, 1976; Phillips, 1968; Rosenfeld & Plax, 1976). Research has confirmed that reticents have nonassertive, submissive personalities, that they avoid competitive situations and that they exhibit fewer leadership behaviors (Fenton & Hopf, 1976; Giffin & Gilham, 1971; Knutson & Lashbrook, 1976; McCroskey, 1976, 1978; McCroskey & Richmond, 1976; Porter, 1982; Wenzlaff, 1972).

P2: Communication reticents are less dominant, controlling and persuasive in interpersonal interactions than are nonreticents.

The nonverbal cues that typically should convey these relational meanings include eye contact, vocal rate and volume, postural relaxation

and proximity (Brandt, 1980; Burgoon, Buller, Hale & deTurck, 1981; Mehrabian, 1972; Strongman & Champness, 1968; Thayer, 1969).

Immediacy-nonimmediacy. This dimension of relational communication clusters together themes signalling detachment, distance and lack of involvement. If any relational message theme should characterize reticents, it is this one. By virtue of their attributed shyness, social ineptitude, anti-social attitudes, sense of social isolation and feelings of psychological distance (Burgoon, 1976c; Freimuth, 1976; Low & Sheets, 1951; McCroskey, Daly & Sheahan, 1976; Phillips, 1968), reticent communicators should manifest greater detachment and aloofness in their interaction with others and should be less successful at expressing warmth and interest.

Empirical evidence confirms that apprehension correlates with greater perceived nonimmediacy (distance), less displayed interest and fewer relevant contributions to group discussions (Jensen & Andersen, 1979; Sorensen & McCroskey, 1977; Weiner, 1973; Wells & Lashbrook, 1970; however, Burgoon & Burgoon, 1974, failed to find lesser relevance and interest among their apprehensive group discussants). Tangentially related research on interpersonal attraction has also shown that reticent communicators are perceived as less socially, sexually and task attractive (Fenton & Hopf, 1976; McCroskey, Daly, Richmond & Cox, 1975; McCroskey & Richmond, 1976; Quiggins, 1972; Wissmiller & Merker, 1976). These findings suggest, if not directly substantiate, that reticents may be sending fewer involvement and affiliation messages and consequently being perceived more negatively by interaction partners.

P3: Communication reticents are less immediate and more detached in their interpersonal interactions than are nonreticents.

Nonverbal cues indicative of nonimmediacy include less eye contact, backward body lean, indirect body orientation, absence of other-directed touch, and less smiling or facial pleasantness (Andersen, 1979; Burgoon, Buller, Hale & deTurck, 1981; Mehrabian, 1981).

Intimacy/similarity/formality. As the composite label implies, this cluster of relational message themes centers around messages of intimacy, including expressions of liking, attraction, friendliness, and trust, as well as informality and perceived similarity. It can be contrasted with immediacy in that its messages tend to be more on an evaluative continuum, while the detachment messages tend to form more of an intensity continuum.

As constitutively defined and operationalized, reticents, especially those who find communication less rewarding, tend to have less trust for others' communication (Burgoon, 1976c; Heston & Andersen, 1972). They are also likely to be unaffectionate, moody and defensive (McCroskey, Daly & Sorensen, 1976; Rosenfeld & Plax, 1976). These socially maladaptive personality traits and attitudes should lead to a nonaffiliative communication style that does not engender perceived liking, intimacy, similarity and informality. McCroskey's (1978) proposition that "as a result of their oral communication behavior, high oral communication apprehensives are perceived less positively by others than are less apprehensive people" (p. 197) also conforms with this expectation. A conflicting picture comes from the characterization of reticents as pliant and cooperative (McCroskey, Daly & Sorensen, 1976; Rosenfeld & Plax, 1976) and the suggestion that they may be perceived as higher in character (McCroskey, 1977). Nevertheless, the bulk of the evidence, including the preponderance

of negative credibility evaluations and unflattering personality correlates, points to a communication style that expresses nonintimacy, dissimilarity and formality.

P4: Reticents express less intimacy, similarity and informality in their interpersonal interactions than do nonreticents.

Nonverbal indicators of intimacy and attraction include the following: frequent eye contact, close proximity, forward body lean, frequent smiling, pleasant facial expressions and use of touch (Burgoon, 1983; Burgoon, Buller, Hale & deTurck, 1981; Coutts & Schneider, 1976; Kleinke, Meeker & LaFong, 1974; Mehrabian, 1968, 1981; Mehrabian & Ksionzky, 1976; Patterson, Jordan, Hogan & Frerker, 1981; Rosenfeld, 1966; Russo, 1975; Sundstrom & Altman, 1976; Thayer & Schiffe, 1974).

The specific hypotheses derived from these propositions are enumerated in each experiment.

Study One

Hypotheses

Because the first experiment was designed in part to test effects of immediacy violations (Hale & Burgoon, 1983), the experimental design and dependent measures were selected to accommodate both theoretical interests. To assess perceived relational communication, participant judgments of their partners on the four relational message clusters and observer judgments on general measures of tension and interest were examined. As direct tests of the propositions, the following hypothesis was advanced:

H_1: As communication reticence increases, an individual's relational communication is perceived to express
a) greater anxious arousal, nonreceptivity and tension,
b) greater detachment, nonimmediacy and disinterest,
c) lesser assertiveness and dominance, and
d) lesser intimacy, similarity and informality.

To test the possible nonverbal indicators corresponding with this reticent relational communication pattern, a second hypothesis was advanced:

H_2: As communication reticence increases, an individual's communication pattern shows
- a) more anxiety and nervousness indicators (e.g. self-touching, body blocking, and uncoordinated movement),
- b) less bodily activity and animation (e.g., head nodding, random movement),
- c) more indirect head and body orientation,
- d) more backward lean,
- e) less eye contact, and
- f) less facial pleasantness and expressiveness.

Additionally, because credibility and attraction data were available, replications of the previous credibility and attraction results were attempted:

H_3: As communication reticence increases, an individual is perceived as
- a) higher in character,
- b) less sociable and socially attractive,
- c) less physically attractive,
- d) less extroverted, and
- e) less composed.

Method

Subjects were pairs of friends, half of whom came from undergraduate communication courses and received extra credit for their participation and that of their friend. Each subject interacted once with his/her own friend and once with someone else's friend, for a total of 90 subjects in friendship dyads and 90 subjects in stranger dyads. Because the communication student in each pair was asked to vary systematically his/her communication style as part of the immediacy violations manipulation,[3] only the behaviors of the naive subjects (N = 45) are studied here.

Dyads interacted for nine minutes on one of four value-laden social topics (e.g., how to advise a Catholic sibling about a proposed abortion or

how to deal with a sibling who has stolen a valuable possession from a friend), during which time they were to arrive at a consensus on how to deal with the problem. Order of topics and order of interactions (friend versus stranger) were counterbalanced across the design. Interactions were videotaped with the subjects' knowledge and later coded by trained raters. At the conclusion of each discussion, both participants rated their partners on attraction, credibility and perceived relational communication.

Prior to the interactions, subjects completed two reticence measures -- The Personal Report of Communication Apprehension (PRCA) and the Unwillingness-to-Communicate Scale (UCS). The PRCA (McCroskey, 1970, 1978) version used was a 20-item Likert-type scale that primarily measures anxiety about speaking in public settings; however, its items cover a variety of situations ranging from informal interpersonal encounters to highly formal public address. Extensive research has demonstrated that the measure is highly reliable with good predictive validity. In this experiment, the coefficient alpha reliability was .97.

The UCS (Burgoon, 1976c) is also a Likert-type scale, with 26 items measuring two dimensions of communication reticence: approach-avoidance (AA) and reward (R). The AA dimension represents an individual's tendency to avoid or participate in interpersonal and small group interactions. In tapping into one's behavioral and anxiety predispositions, it shows a kinship to the PRCA. The R dimension, by contrast, reflects attitudes toward communication--whether one considers it a valuable, honest and personally rewarding enterprise or feels socially isolated and regards communication as a deceptive, manipulative or unprofitable

activity. In this study, AA produced a coefficient alpha reliability of .95; R had a reliability coefficient of .92.

Assessments of the naive subjects that were completed by the confederates included 15 items designed to measure five dimensions of peer credibility (Burgoon, 1976b; McCroskey, Jensen & Valencia, 1973), 12 items measuring three dimensions of attraction (McCroskey & McCain, 1974), and 20 items measuring the four dimensions of relational communication (Burgoon & Hale, 1981).[4] Coefficient alpha reliabilities for these twelve subscales were: competence, .86; composure, .87; sociability, .88; extraversion, .81; character, .71; task attraction, .75; physical attraction, .66; social attraction, .39; intimacy/similarity/formality, .81; dominance-submission, .69; immediacy-nonimmediacy, .46; and emotional arousal/composure, .72.

The remaining dependent measures were ratings supplied by pairs of trained coders (N = 6), who made qualitative ratings after four and eight minutes of interaction. Split-screen videotapes were used so that the confederates' side of the screen could be covered, thereby preventing their behavior from influencing coder judgments.

The scales measuring general tension and interest were taken from the Interaction Behavior Measure (McCroskey & Wright, 1971). Each consisted of two seven-interval semantic differential items. Alpha reliabilities were .99 and .98 respectively; interrater reliabilities were .77 and .84.

The remaining nonverbal behaviors, some of which had been used in field experiments (Burgoon & Aho, 1982) and others which were selected specifically for their relational connotations, were also measured on seven-interval semantic differential scales. The anxiety indicators of

self-touching, body blocking, face covering and uncoordinated movement were all measured on a continuum from frequent to none, as were leaning away and the activity indicators of head nodding and random movement. Head and body orientation were on a continuum from direct to indirect, eye contact ranged from constant to none, and facial expression included three bipolar pairs--unpleasant to pleasant, impassive to animated, and no to frequent smiling. Interrater reliabilities on all single item measures ranged from .58 to .88 and averaged .75. To increase reliability and reduce Type I error due to the number of variables being analyzed, indices were created (based on factor-analytic results) for head and body orientation, facial pleasantness (smiling, pleasantness and animation) and nonverbal anxiety (self-touching, face covering, and body blocking). Rater reliabilities for the three composites were .74, .74, and .89 respectively; alpha reliabilities were .72, .75, and .76.

Results

Separate Pearson product-moment correlations between reticence and communication behaviors/perceptions were computed for the two replicates of friend dyads and stranger dyads. All significant correlations are shown in Table 1. Because of the small sample size necessitated by analyzing only naive subjects' behaviors, correlations suggestive of trends ($.05 < p < .10$) are also shown.

Table 1 about here

Across the three reticence dimensions, the two types of interaction and the 23 dependent measures of primary interest, 138 correlations are possible. By chance alone, one would expect seven of these to be significant.

Instead, 30 are significant, indicating far more than a chance occurrence. Moreover, if the correlations significant at the more liberal .10 level are counted, then 52 are significant (compared to an expected 14 by chance alone). Also noteworthy are the magnitudes of the corrected correlation coefficients, most of which indicate effect sizes in the medium to medium-large range (see Cohen & Cohen, 1975). These are sizable when one considers the absence of control over other likely influences on interaction behavior and the typically weak relationships to be expected between a predisposition and any single behavior (see Daly, 1978, and Hewes & Haight, 1980, for a discussion of this issue). Moreover, the necessity of restricting our analysis to the 45 naive members of each dyad type meant that our power to detect medium effect sizes was only 55-60%. This means that many of the relationships appearing as trends, as well as other undetected relationships, might have been significant with a larger sample size.

Turning to the hypotheses, the prediction that communication reticents would be perceived as sending more negative relational messages than nonreticent communicators (Hypothesis 1) largely obtained in the stranger dyads. Those individuals who were classified as communication avoiders and/or apprehensives were seen by their dyadic partners as expressing more negative arousal and noncomposure, more nonimmediacy and detachment, more submissiveness, and less intimacy and similarity. The trained observers also rated these reticents as more tense, anxious, disinterested and uninvolved.

For those individuals classified as reticents because of negative evaluations of communication rewards, a weaker but consistent pattern

obtained. Such individuals were seen by their partners as more negatively aroused and uncomposed and were rated by observers as expressing less interest and involvement.

In the friend dyads, a peculiar pattern appeared. Communication apprehensives, avoiders and devaluers alike were rated by observers as more apathetic and disinterested, in keeping with the hypothesis. However, friends only read detachment into the behavior of those who hold negative attitudes toward communication. On the other relational dimensions, they either failed to credit reticent friends with different relational communication patterns or attributed a more favorable style to them. Specifically, avoiders were rated as more intimate, similar, nonaroused and composed than nonavoiders.

As for the nonverbal behaviors themselves (Hypothesis 2), interactions with friends surprisingly elicited more of the predicted behaviors than did interactions with strangers. When interacting with friends, reticents showed more anxiety; less activation and positive affect through reduced head nodding; more detachment and nonintimacy through greater leaning away, and less facial pleasantness than nonreticent communicators. These patterns differed by reticence classification. Communication apprehensives and devaluers showed the greatest similarity in their pattern, with one exception: Follow-up analyses indicated that the reduced facial pleasantness among apprehensives was more due to their overall facial animation (corrected $r = -.28$) and apparent pleasantness (corrected $r = -.21$) while among nonreward reticents, it was due primarily to less smiling (corrected $r = -.31$). Communication avoiders showed the same facial impassivity, leaning away and reduced nodding as apprehensives, but instead of

manifesting the usual anxiety indicators, displayed greater random and uncoordinated movement. We had classified these behaviors as activation signals but they can also be interpreted as signs of restlessness and discomfort.

Interactions with strangers elicited fewer detectable nonverbal correlates of reticence beyond the already noted general increases in tension and disinterest. Apprehensives and avoiders did show less activation through a reduction in head nodding, and nonreward reticents tended to show a similar reduction in activation through less random movement. Apprehensives also exhibited a weak tendency to reduce eye contact relative to nonreticents. These results suggested that the consistently negative perceptions of relational communication, credibility and attraction that reticents earned from strangers were either due to other nonverbal or verbal behaviors that we had not observed or to subtle variations in the observed nonverbal behaviors that individually were not significant but became meaningful in combination.

Hypothesis 3 proposed a replication of previous findings that communication reticents are generally seen as less credible and attractive but possibly higher in character. The results obtained here largely paralleled those for the relational message perceptions. Consistent with the hypothesis, apprehensives and avoiders were rated by strangers as less sociable (a trend only), less extroverted, less composed and less socially attractive. Although not hypothesized, they were also seen as less task attractive and slightly less competent. Contrary to the hypothesis, they were seen as lower rather than higher in character and neither more nor

less physically attractive. Thus apprehensives and avoiders were routinely given more negative evaluations, in keeping with the more negative perceptions assigned to their relational communication. Those classified as reticents because of their devaluation of communication escaped all of these negative evaluations and inexplicably received a higher rating on physical attraction.

By contrast, friends made far fewer discriminations and/or gave their apprehensive or avoider friends more favorable evaluations than nonreticent friends. Such individuals were rated more attractive and in the case of avoiders, more competent. Again, nonreward reticents showed a divergent pattern: Their friends rated them as less sociable (a finding in line with the hypothesis and with the negative relational communication style they exhibited with friends).

This experiment raised almost as many questions as it answered. It showed that communication apprehensives and avoiders do frequently exhibit negative forms of arousal (through nonverbal cues of anxiety, tension and restlessness), more detachment and disinterest (through such negative forms of feedback as less facial pleasantness and less nodding) and less intimacy (through leaning away or avoiding eye contact). Strangely, however, these behavioral patterns are more pronounced in interactions with friends, who fail to attribute to them negative relational interpretations, and less pronounced with strangers, who nevertheless see negative relational messages being sent. Equally puzzling is the fact that friends of nonreward reticents do attribute more negative relational and credibility connotations to their behavior, which stranger partners

do not. These findings raise questions as to (1) whether friends overlook or compensate for a reticent's dysfunctional communication style in assessing relational meanings, credibility and attraction; (2) whether nonreward reticents are truly different from their more anxious counterparts in their communication style, such that they add other cues to their behavioral repertoire that counteract the negative displays observed here; (3) whether, contrary to our original assumption, interacting with a friend on value-laden topics may be as stressful or more so than interacting with a stranger; and (4) whether such nonthreatening, informal settings in fact evoke sufficient stress to elicit a full-fledged reticence communication pattern.

The next experiment was designed to resolve some of these ambiguities by eliminating possible halo effects that come from friends rating one another, by creating an interaction context more likely to evoke typical reticence behaviors and by once again using subjects as their own control to see if changing contextual contingencies would alter their reticence pattern. We also sought to increase the sample size to see if weak trends appearing in the first experiment would show stronger relationships in the second one.

Study Two

Hypotheses

Inasmuch as reticent individuals are predisposed to communication difficulties under normal circumstances, added situational stress can reasonably be expected to exacerbate any deleterious effects. Bryant and Tower (1974) define a stressful situation as one which "makes you

feel anxious or uncomfortable, either because you don't know what to do, or because it makes you feel frightened, embarrassed or self-conscious" (p. 15). A growing body of literature (e.g., Hodges, 1968; Rappaport & Katkin, 1972; Spielberger & Smith, 1966) has demonstrated that situations that "threaten failure or personal inadequacy" cause both high and low communication apprehensives to behave quite differently than in nonthreatening situations (Argyle, Furnham & Graham, 1981).

The second experiment examined more closely how heightening stress affects the communication of reticents. Subjects engaged in a more formal type of interaction--an interview--with a stranger who alternately asked trivial, non-threatening questions and more personal, invasive and possibly embarrassing questions. Relative to the low stress of Study One, the two conditions used here--privacy invasion and noninvasion--were expected to create high and moderate levels of stress.

To protect the confidentiality of subjects' replies to the intimate questions and to ensure that they would complete the interviews, all subjects were promised that only video recordings would be made of their interactions. This necessitated limiting observations to only visual cues and judgments that could be made based solely on visual cues. Consequently, only the tension and interest components of Hypothesis 1 from Study One were tested. All of Hypothesis 2 was tested.

Method

Subjects were 55 undergraduate students enrolled in communication courses who participated voluntarily but earned class credit. The sample was 54% female.[5]

Subjects completed the PRCA and UCS as part of a larger battery of questions related to privacy. At a later date, they reported to a conference room ostensibly to participate in a study of interviewing techniques. They were greeted by an assistant who ushered them into the conference room where a male or female confederate interviewer met them. The interviewer then proceeded through a prearranged schedule of questions, the first page of which consisted of innocuous questions such as, "What is your major?" and "What types of books do you like to read?" The second page shifted to more personal questions such as, "What are your most common sexual fantasies?" and "What are the sources of insecurity in your relationship with members of your family?" Page three returned to nonthreatening questions, while page four again probed very intimate and possibly embarrassing topics.[6]

Interviewers were trained to maintain a neutral demeanor throughout the interviews. They were monitored during and after the interviews to ensure consistency.

Videotapes of the interviews were coded by pairs of trained raters on the same nonverbal behaviors used in Study One, with ratings being made at the end of each page of the interview. Interrater reliabilities for individual and composite behaviors ranged from .60 to .89 (average of .75) excluding uncoordinated movement, body orientation and leaning away, which were dropped from further analysis because of low reliabilities. Coefficient alpha reliabilities for tension, interest and facial pleasantness were .93, .91 and .87 respectively.

Results

Analyses were conducted on each of the four time periods. As the results in Table 2 demonstrate, the hypotheses were largely confirmed. As communication reticence increased, so did tension and displayed disinterest. These patterns were extremely consistent across the two stress conditions,[7] across time and across all three reticence classifications, providing strong support for the part of Hypothesis 1 tested in this study.

Table 2 about here

Nonverbal indications of anxiety appeared but differed by stress condition and reticence classification. Reticents who devalue communication showed the most consistent pattern of self-touching and body blocking regardless of stress level, with face covering also eventually emerging under high stress. Avoiders and apprehensives showed a weaker pattern of some blocking and in high stress, face covering (for avoiders only). Reticents simultaneously exhibited less activation, primarily in the form of less random movement and less head nodding. More of this depressed behavior pattern appeared in the high stress condition and was especially common among avoiders and apprehensives. This greater restrictedness of movement among these latter reticents may in turn have accounted for the absence of self-touching in their behavior.

Cues of detachment, nonaffiliation and nonintimacy were also more pronounced among reticents. In addition to providing less positive reinforcement in the form of head nods, reticent individuals displayed less facial pleasantness and animation, less eye contact and greater indirectness of head orientation. These patterns were relatively consistent across stress conditions but showed stronger effects, both in

terms of magnitude of the correlation and sustained effects across time, in the high stress condition.

Beyond the three behaviors that were not analyzed due to low reliability, the only ones that failed to show a relationship with reticence were rocking and head turning. In retrospect, the nature of the chairs used and the presence of a camera may have inhibited these behaviors, thus reducing the range of behaviors exhibited and the possibility of detecting a relationship. It would be premature to conclude that these cues are insensitive to reticence effects.

Overall, heightening the stress level yielded more observable behaviors indicative of tension, negative emotional arousal, nonimmediacy, disinterest and nonintimacy among all three classes of reticents. Consistent with our initial premise, moreover, altering the stress level did not fundamentally change the behavioral configuration.

Discussion

The combined results of these two experiments have several important implications. First, they demonstrate that predispositions toward communication reticence translate into a perceptible communication style that can be characterized as simultaneously anxious, tense, depressed and unanimated; as detached, apathetic and uninvolved; as nonaffiliative and non-intimate, and possibly as submissive.

Specifically, compared to nonreticents, reticents tend to show more negative forms of arousal through increased bodily tension, more self-touching and more protective behaviors such as body blocking, face covering and leaning away from their dyadic partner. Sometimes they

also exhibit more uncoordinated trunk and limb movement. However, their behavior is usually more restrained and rigid. They tend to exhibit less head turning, less random movement and fewer indicators of positive arousal, such as facial animation and head nodding. The reduction in head nodding also means that the reticent individual supplies less positive feedback to his or her dyadic partner. Coupled with reduced eye contact, leaning away, less facial pleasantness, more indirect head orientation and more cues of apathy, the reticent communicates greater nonimmediacy and nonintimacy. Finally, less animated behavior, the avoidance of eye contact and tense posture may in combination communicate greater submissiveness by the reticent. The ratings by strangers on relational communication, credibility and attraction in the first investigation reveal that the nonverbal behaviors largely produced the expected connotations.

Second, the results reinforce the view that such predispositions can be dysfunctional. Strangers did assign negative meanings to the interaction pattern of reticents and rated them as lower on credibility and attraction. One could speculate that by providing fewer positive reinforcements and affiliative responses to others, reticents engender more negative communication directed to themselves. This would tend to confirm their own feelings of communication failure and thus contribute to a vicious cycle of the reticent's undesirable communication style triggering negative reactions from others, causing the reticent to become even more withdrawn, uncommunicative, fearful and alienated. However, a major qualification needs to be placed on this conclusion that reticence is dysfunctional. In the case of apprehensives (PRCA) and avoiders

(UCS) at least, friends assigned them more favorable ratings on attraction and competence and saw their relational communication as affiliative, similar, composed and lacking negative emotional arousal. Only those who see communication as nonrewarding (UCS) were rated by friends as more detached, disinterested, and unsociable. The reversal in evaluations of those reticents who have greater anxiety about communication suggests that once they do make friends, those friends either see past the reticence behaviors or actively compensate for them in their judgments. Thus, while a reticence syndrome can seriously undermine communication with strangers, and may make it more difficult to establish friendships, once a friendship is established, an individual's reticence may actually elicit a more sympathetic and tolerant response than would exist otherwise.

Third, these experiments demonstrate the stability and cross-situational consistency of a reticence communication pattern. Essentially the same set of cues emerged as relevant in each of the two investigations and, save for a few interchangeable activation behaviors, the directionality of the cues remained constant across the four conditions represented in the two experiments. While the alteration in stress levels tended to produce a concomitant alteration in the severity of the response, the same general behavioral and perceptual profile appeared in each case. Moreover, the pattern showed remarkable constancy across time in the second study. Most cues appeared in both time periods within each stress level.

The only results casting some doubt on the constancy of the reticence profile are those in the stranger interactions in Study One. Fewer

nonverbal cues emerged as significant correlates. However, the relational communication ratings supplied by partners, coupled with the interest and tension differences noted by observers, indicate that something was going on. It is possible that many of the cues were too weak in their effects to emerge singly as significant but that their cumulative effect did have an impact on perceptions. In fact, several of the cues did have correlations in the right direction, but due to the small sample size, failed to reach statistical significance. It is also likely that unmeasured nonverbal cues, such as vocalic patterns, contributed to perceptions. These cues deserve attention in future investigations. Practical considerations regarding the number of cues raters could reasonably observe at one time, along with the confidentiality constraints of the second experiment, necessitated focusing on kinesic, proxemic and haptic behaviors in these studies.

Finally, by separating out three different subcomponents of reticence--apprehension, avoidance and attitudes toward communication rewards--these experiments revealed variations in the behavioral repertoire associated with each. While all three entail tension, apathy, withdrawal, lack of animation and lack of affiliative or positive feedback cues, communication devaluers tend to exhibit fewer of the behaviors under low stress; in other words, they tend to approximate normal communication patterns more so than other reticent subgroups. This is most apparent in the fewer negative perceptions of them by strangers. Avoiders and apprehensives also differ somewhat on which anxiety and activation behaviors they manifest. The subtle differences in communication behaviors across the three reticence classifications highlight the need to recognize different components to the reticence syndrome that may produce variations in communication practices.

Table 1

Correlations between Communication Reticence and Relational Communication, Credibility and Attraction, by Dyad Type[1]

COMMUNICATION BEHAVIOR/ PERCEPTIONS	INTERACTIONS AMONG FRIENDS PRCA	UCS-AA	UCS-R	INTERACTIONS AMONG STRANGERS PRCA	UCS-AA	UCS-R
A. Partner Perceptions						
Emotional Arousal/Composure		-.21 (-.25)			.29* (.35)	.29* (.36)
Immediacy-Nonimmediacy			.37* (.57)	.27* (.40)		
Dominance-Submission				-.33* (-.40)	-.21 (-.26)	
Intimacy/Similarity		.24 (.27)		-.27* (-.30)	-.39** (-.44)	
Character				-.20 (-.24)	-.34* (-.41)	
Sociability			-.27* (-.30)	-.20 (-.22)	-.21 (-.23)	
Composure					-.26* (-.29)	
Extraversion				-.26* (-.29)		
Competence		.27* (.30)		-.21 (-.23)	-.23 (-.25)	
Social Attraction	.23 (.29)	.27* (.34)		-.20 (-.25)	-.28* (-.38)	
Physical Attraction						.29* (.37)
Task Attraction	.37** (.43)	.42* (.49)		-.29* (-.34)	-.41** (-.48)	
B. Rated Behaviors						
Tension					.25* (.26)	
Interest	-.24 (-.25)	-.32* (-.33)	-.21 (-.22)	-.26* (-.27)	-.36** (-.37)	-.28* (-.29)
Anxiety Indicators (self-touching, face covering, body blocking)	.22 (.26)		.25* (.30)			
Activation Indicators						
Random Movement		.25* (.33)				-.22 (-.29)
Uncoordinated Movement		.22 (.27)				
Nodding	-.29* (-.34)	-.32* (-.38)	-.20 (-.24)			
Head Turning				-.22 (-.29)	-.26* (-.35)	

Table 1, continued

COMMUNICATION BEHAVIOR/ PERCEPTIONS	INTERACTIONS AMONG FRIENDS PRCA	UCS-AA	UCS-R	INTERACTIONS AMONG STRANGERS PRCA	UCS-AA	UCS-R
Head and Body Indirectness (Composite)						
Leaning Away	.21 (.23)		.25* (.28)			
Eye Contact				-.19 (-.23)		
Facial Pleasantness (pleasantness, animation, smiling)	-.19 (-.22)	-.22 (-.26)	-.22 (-.26)			

[1] Measures are scored such that higher scores on the reticence subscales mean higher degrees of reticence. Higher scores on the relational messages indicate greater negative arousal and noncomposure, nonimmediacy, dominance, and intimacy and similarity. Higher credibility and attraction scores mean more favorable evaluations on each dimension. Higher scores on the nonverbal indicators reflect greater degrees of the cue as labeled. The coefficients in parentheses are the correlations when corrected for attenuation.

* $p < .05$.

** $p < .01$. Correlations without asterisks are significant at the $p < .10$ level.

Table 2

Correlations between Communication Reticence and Nonverbal Behaviors, by Stress Level[1]

	MODERATE STRESS CONDITION (NONINVASION OF PRIVACY)			HIGH STRESS CONDITION (INVASION OF PRIVACY)		
NONVERBAL BEHAVIORS	PRCA	UCS-AA	UCS-R	PRCA	UCS-AA	UCS-R
Tension	.24(.25)* .24(.25)*	.35(.37)** .33(.35)**	.35(.38)**	.29(.31)* .26(.27)*	.44(.47)** .38(.40)**	.40(.43)** .29(.31)*
Interest	-.37(0.39)** -.32(.34)**	-.52(-.56)** -.45(-.48)**	-.30(-.33)** -.31(-.34)**	-.30(-.32)** -.39(-.42)**	-.44(-.47)** -.53(-.57)**	-.30(-.33)** -.38(-.42)**
Anxiety Indicators						
Self-touching			.18(.35) .25(.49)*			.20(.39) .27(.53)*
Face Covering					.28(.51)*	.27(.50)*
Body Blocking		.20(.23)	.21(.25) .18(.21)	.18(.20)	.24(.28)	.17(.20)
Activation Indicators.						
Random Movement				-.26(-.34)* -.22(-.29)*	-.34(-.45)** -.31(-.41)**	
Head Nodding	-.25(-.32)*	-.22(-.28)* -.33(-.42)**			-.25(-.32)* -.34(-.44)**	-.22(-.29)*
Head Turning						
Head Indirectness	.39(.52)**	.41(.55)**	.23(.31)*	.29(.38)* .24(.32)*	.27(.36)* .35(.47)**	.30(.41)*
Eye Contact	-.24(-.31)* -.19(-.25)	-.22(-.29)* -.25(-.33)*		-.25(-.33)*	-.27(-.36)* -.26(-.34)*	-.31(-.42)**
Facial Pleasantness	-.22(-.24)* -.21(-.23)	-.35(-.38)** -.36(-.40)**	-.25(-.28)* -.26(-.29)*	-.35(-.38)** -.33(-.36)**	-.47(-.52)** -.50(-.55)**	-.38(-.42)** -.32(-.36)**

[1] For each stress condition, the correlation for the second time period appears below the first time period (i.e., ratings for pages one and three of the interview are shown one above the other in the moderate stress condition and ratings for pages two and four appear under the high stress condition. The coefficients when corrected for attenuation appear in parentheses. Only where a significant correlation appears in one or more time periods are trends ($p<.10$) for a given behavior also recorded.

*$p<.05$

**$p<.01$

NOTES

1. The two experiments reported here addressed other issues beyond reticence. These other interests strongly guided the experimental design. The reticence issues, however, greatly influenced the selection of dependent measures.
2. In the study of relational communication, it is often argued that the unit of analysis must be the dyad. As evidence for this argument, it is noted that one cannot code relational control without looking at dyadic interacts. This is a legitimate demand when one is taking the perspective of an outside observer of the process. However, if one is attempting to discern the perspectives of the participants, one must of necessity poll the individuals separately. This does not change the fact that any conclusions drawn are about the jointly produced communication activity and the mutual perceptions that are derived within the context of the relationship.
3. The immediacy violation instructions consisted of telling one-third of the subject confederates to adopt a highly immediate interaction pattern (including close conversational distance, forward body lean, frequent eye contact and vocal "interest"), another third to adopt a highly nonimmediate interaction pattern (including a distal conversational distance, backward body lean, infrequent eye contact and vocal "disinterest") and the remaining third to interact in as normal a fashion as possible. While it would have been desirable to also test separately the effects on reticence responses of the three immediacy violation conditions, the sample size was insufficient to do so.

The inclusion of these three different conditions at least increased the variability of conditions under which reticence patterns were explored, so that any reticence patterns that emerged would reflect a relatively constant behavior pattern impervious to the influences of one's partner. Because naive subjects interacted under the same immediacy condition in their two separate interactions, the level of immediacy remained a constant for any given subject, meaning that any differences across the two relationship conditions (friend v. stranger) were due to the changed composition of the dyad.

4. The items comprising the four relational message dimensions were as follows (those with reflected scoring noted in parentheses):

Emotional Arousal/Composure

He/she felt hostile toward me.
He/she was frustrated by me.
He/she was sincere. (reflected)
He/she tried to establish good relations (rapport) between us. (reflected)
He/she was unresponsive to my ideas.
He/she wanted to appear reasonable. (reflected)

Dominance-Submission

He/she was competitive.
He/she attempted to persuade me.
He/she tried to win my approval.
He/she communicated aggressiveness.
He/she wanted to dominate the conversation.

Nonimmediacy

He/she was very unemotional.
He/she created a sense of distance between us.
He/she seemed to have higher status than me.

Intimacy/Similarity

He/she didn't care if I liked him/her. (reflected)
He/she expressed attraction toward me.

He/she wanted me to trust him/her.
He/she seemed to desire further communication with me.
He/she felt very relaxed talking to me.
He/she made our conversation seem intimate.
He/she considered us equals.

5. While the increase in sample size over Study One was smaller than hoped for, the power to detect medium effect sizes increased to 65-70%.

6. It would have been preferable to counterbalance the order of questions, half the time beginning with personal ones. However, we felt that opening with intimate questions would arouse the subjects' suspicions about the purposes of the study and contaminate the results. The exact same sequence was therefore followed for the sake of experimental uniformity.

7. Supplementary analyses of variance revealed that the nonverbal behavior patterns differed across the four time periods, indicating that the introduction of privacy-invading questions did alter the communication context.

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